adhesives may be advantageous e.g. to bond polymers such as EVOH to ethylene polymer containing

layers such as VLDPE.

In The Claims:

Please amend Claims 6, 23, 24, 33, 43, 45, 46, 54, 55, 64, 65, 66, 80, 81, 82, 83, 85, 86,

87, 104, 107 and 108 as follows:

6. (Amended)   A film, as defined in claim 1, wherein said third polymer is selected from the

group consisting of ethylene vinyl acetate copolymer, ethylene methylacrylate copolymer, ethylene

butylacrylate copolymer, ethylene ethylacrylate copolymer, ethylene acrylic acid copolymer, and

ethylene methacrylic acid copolymer.

23. (Amended)   A film, as defined in claim 1, wherein said layer comprising a blend has been

irradiatively crosslinked.

24. (Amended)   A film, as defined in claim 1, wherein said film forms a tube having an inner

heat sealing layer comprising said blend.

33. (Amended) A film, as defined in claim 22, wherein said film comprises:

a first heat sealing surface layer comprising a polymer selected from the group consisting of: (a)

at least 50% by weight of a copolymer of propene and at least one α-olefin selected from the group

consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1 and mixtures thereof having a

propene content of at least 60 wt. %, and (b) at least 50% by weight of a copolymer of ethylene and at

least one α-olefin selected from the group consisting of propylene, butene-1, methylpentene-1, hexene-1,

octene-1 and mixtures thereof having a melting point of at least 105°C and a density of at least 0.900

g/cm^3;

a second intermediate layer;

alkyl acrylate; a third layer comprising at least 50 percent by weight of copolymer of ethylene with at least one alpha-olefin or at least one vinyl ester or blends thereof, and a second layer comprising a vinylidene chloride copolymer, a nylon or a copolymer of ethylene with a vinyl alcohol; said film having a ram puncture force of at least 70 Newtons, a ram puncture stress of at least 110 MPa, and a tear propagation strength "x" such that $10 \leq x \leq 40$ grams per mil in each of the machine and transverse directions or $x<25$ grams per mil in at least one of the machine and transverse directions.

45. (Amended) A film, as defined in claim 44, wherein said maximum ram puncture force is at least 150 Newtons.

46. (Amended) A film, as defined in claim 44, wherein said maximum ram puncture force is at least 200 Newtons.

54. (Amended) A film, as defined in claim 44, wherein said film comprises:

a first heat sealing surface layer comprising a polymer selected from the group consisting of: (a) at least 50% by weight of a copolymer of propene and at least one α-olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1 and mixtures thereof having a propene content of at least 60 wt. %, and (b) at least 50% by weight of a copolymer of ethylene and at least one α-olefin selected from the group consisting of propylene, butene-1, methylpentene-1, hexene-1, octene-1 and mixtures thereof having a melting point of at least 105°C and a density of at least 0.900 g/cm^3;

a second intermediate layer;

a third core layer comprising at least 80% by weight, based on said third layer's weight, of at least one copolymer of vinylidene chloride with from 2 to 20 weight percent, based on said copolymer's weight, of vinyl chloride or methyl acrylate; and

a fourth surface layer;

wherein at least one of said second and said fourth layers comprise said blend of at least three

copolymers, and said core layer is disposed between said second and said fourth layers.

55. (Amended) A film, as defined in claim 54, wherein said film has a shrinkage value at 90°C

of at least 40% in at least one of the machine and transverse directions.

64. (Amended) A biaxially stretched, heat shrinkable film comprising at least three layers,

wherein said first layer comprises a blend of at least three polymers comprising: a first polymer having a

melting point of 80 to 98°C comprising a copolymer of ethylene and hexene-1; a second polymer having

a melting point of 115 to 128°C comprising a copolymer of ethylene and at least one α-olefin; a third

polymer having a melting point of 60 to 110°C comprising a copolymer ethylene and a vinyl ester or

alkyl acrylate; a third layer comprising at least 50 percent by weight of copolymer of ethylene with at

least one alpha-olefin or at least one vinyl ester or blends thereof, and a second layer between said first

and third layers; said second layer comprising a vinylidene chloride copolymer, a nylon or a copolymer

of ethylene with a vinyl alcohol; said film having a maximum ram puncture force of at least 120

Newtons, and a total energy absorption of at least 1.20 Joules.

65. (Amended) A film, as defined in claim 64, wherein said maximum ram puncture force is at

least 150 Newtons.

66. (Amended) A film, as defined in claim 64, wherein said maximum ram puncture force is at

least 200 Newtons.

80. (Amended) A process for making biaxially stretched, heat shrinkable film comprising a

polymeric blend A comprising:

extruding a melt plastified primary tube comprising 20 to 85 weight percent of a first polymer

having a melting point of 80 to 98°C comprising at least one copolymer of ethylene and hexene-1;

5 to 35 weight percent of a second polymer having a melting point of 115 to 128°C comprising at least one copolymer of ethylene and at least one α-olefin; and

10 to 50 weight percent of a third polymer having a melting point of 60 to 110°C comprising at least one copolymer of ethylene and a vinyl ester or an alkyl acrylate; wherein said first and second polymers have a combined weight percentage of at least 50 weight percent, said weight percentage being based upon the total weight of said first, second and third polymers;

cooling said primary tube;

reheating said cooled tube to a draw point temperature of 65 to 88°C;

biaxially stretching said tube to provide a transverse direction circumference of at least 2½ times the circumference of said primary tube and a machine direction length of at least 2½ times the length of a corresponding segment of said primary tube, and cooling said biaxially stretched tube to form a biaxially stretched, heat shrinkable film having a film thickness less than 10 mil (254 microns).

81. (Amended) A process, as defined in claim 80, wherein said draw point temperature is of 68 to 79°C.

82. (Amended) A process for making biaxially stretched, heat shrinkable film comprising:

extruding a melt plastified primary tube comprising 20 to 85 weight percent of a first polymer having a melting point of 80 to 98°C comprising at least one copolymer of ethylene and hexene-1;

5 to 35 weight percent of a second polymer having a melting point of 115 to 128°C comprising at least one copolymer of ethylene and at least one α-olefin; and

10 to 50 weight percent of a third polymer having a melting point of 60 to 110°C comprising at least one copolymer of ethylene and a vinyl ester or an alkyl acrylate; wherein said first and second polymers have a combined weight percentage of at least 50 weight percent, said weight percentage being

based upon the total weight of said first, second and third polymers;

cooling said primary tube;

reheating said cooled tube to a draw point temperature of 68 to 88°C;

biaxially stretching said tube to provide a transverse direction circumference of at least 2½ times the

circumference of said primary tube and a machine direction length of at least 2½ times the length of a

corresponding segment of said primary tube, and cooling said biaxially stretched tube to form a biaxially

stretched, heat shrinkable film having a film thickness less than 10 mil (254 microns), wherein said

resultant film has a ram puncture force of at least 70 Newtons, a ram puncture stress of at least 110 MPa,

and a tear propagation strength "x" such that $10 \leq x \leq 40$ grams per mil in each of the machine and

transverse directions or $x < 25$ grams per mil in at least one of the machine and transverse directions.

83. (Amended) A process for making biaxially stretched, heat shrinkable film comprising:

extruding a melt plastified primary tube comprising 20 to 85 weight percent of a first polymer

having a melting point of 80 to 98°C comprising at least one copolymer of ethylene and hexene-1;

5 to 35 weight percent of a second polymer having a melting point of 115 to 128°C comprising at

least one copolymer of ethylene and at least one α-olefin; and

10 to 50 weight percent of a third polymer having a melting point of 60 to 110°C comprising at

least one copolymer of ethylene and a vinyl ester or an alkyl acrylate; wherein said first and second

polymers have a combined weight percentage of at least 50 weight percent, said weight percentage being

based upon the total weight of said first, second and third polymers;

cooling said primary tube;

reheating said cooled tube to a draw point temperature of 68 to 88°C;

biaxially stretching said tube to provide a transverse direction circumference of at least 2½ times the

circumference of said primary tube and a machine direction length of at least 2½ times the length of a

corresponding segment of said primary tube, and cooling said biaxially stretched tube to form a biaxially

stretched, heat shrinkable film having a film thickness less than 10 mil (254 microns), wherein said

resultant film has a ram puncture force of at least 120 Newtons, and a total energy absorption of at least

1.20 Joules.

85. (Amended) A process, as defined in claim 84, wherein a multilayer primary tube is made by

extruding a tube comprising 20 to 85 weight percent of a first polymer having a melting point of 80 to

98°C comprising at least one copolymer of ethylene and hexene-1;

5 to 35 weight percent of a second polymer having a melting point of 115 to 128°C comprising at

least one copolymer of ethylene and at least one α-olefin; and

10 to 50 weight percent of a third polymer having a melting point of 60 to 110°C comprising at least one

copolymer of ethylene and a vinyl ester or an alkyl acrylate; wherein said first and second polymers have

a combined weight percentage of at least 50 weight percent, said weight percentage being based upon the

total weight of said first, second and third polymers; and coating laminating onto said tube at least one

additional thermoplastic polymeric layer prior to biaxially stretching said tube.

86. (Twice Amended) A process, as defined in claim 80, wherein a multilayer primary tube is
made by coextrusion or coating lamination and said resultant biaxially stretched film comprises:

a heat sealing surface layer comprising a polymer selected from the group consisting of: (a) at

least 50% by weight of a copolymer of propene and at least one α-olefin selected from the group

consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1 and mixtures thereof having a

propene content of at least 60 wt. %, and (b) at least 50% by weight of a copolymer of ethylene and at

least one α-olefin selected from the group consisting of propylene, butene-1, methylpentene-1, hexene-1,

octene-1 and mixtures thereof having a melting point of at least 105°C and a density of at least 0.900

g/cm^3;

an intermediate layer;

a core layer comprising at least 80% by weight, based on said third layer's weight, of at least one copolymer of: EVOH; or vinylidene chloride with from 2 to 20 weight percent, based on said copolymer's weight, of vinyl chloride or methyl acrylate; and

an outer protective surface layer;

wherein at least one of said intermediate and said outer protective layers comprise said polymeric blend A, and said core layer is disposed between said intermediate and said outer protective layers, and said film has a maximum ram puncture force of at least 100 Newtons, a hot water puncture resistance of at least 100 seconds at 95°C and a hot water seal strength of at least 200 seconds at 95°C.

87. (Amended) A biaxially stretched, heat shrinkable, multilayer film useful for food processing and packaging having at least four layers comprising:

a first heat sealing surface layer comprising a polymer or blend of polymers selected from the group consisting of: (a) at least 50% by weight of a copolymer of propene and at least one α-olefin selected from the group consisting of ethylene, butene-1, methylpentene-1, hexene-1, octene-1 and mixtures thereof having a propene content of at least 60 wt. %, and (b) at least 50% by weight of a copolymer of ethylene and at least one α-olefin selected from the group consisting of propylene, butene-1, methylpentene-1, hexene-1, octene-1 and mixtures thereof having a melting point of at least 105°C and a density of at least 0.900 g/cm^3;

a second polymeric layer comprising (a) from 10 to 85 wt. % of a first copolymer of ethylene and at least one C_3-C_8 α-olefin, said first copolymer having a melting point of 55 to 98°C; (b) from 5 to 60 wt. % of a second copolymer of ethylene and at least one C_4-C_8 α-olefin, said second copolymer having a melting point of 115 °C to 128 °C, (c) from 0 to 50 wt. % of a third copolymer having a melting point of 60 to 110°C of ethylene with a vinyl ester or alkyl acrylate, wherein said first and second copolymers

a third core layer comprising at least 80% by weight, based on said third layer's weight, of at least one copolymer of vinylidene chloride with from 2 to 20 weight percent, based on said copolymer's weight, of vinyl chloride or methyl acrylate; and

a fourth surface layer;

wherein at least one of said second and said fourth layers comprise a blend of at least three copolymers comprising:

20 to 85 weight percent of a first polymer having a melting point of 80 to 98°C comprising at least one copolymer of ethylene and hexene-1;

5 to 35 weight percent of a second polymer having a melting point of 115 to 128°C comprising at least one copolymer of ethylene and at least one α-olefin; and

10 to 50 weight percent of a third polymer having a melting point of 60 to 110°C comprising at least one copolymer of ethylene and a vinyl ester, an alkyl acrylate, acrylic acid, or methacrylic acid; wherein said first and second polymers have a combined weight percentage of at least 50 weight percent, said weight percentage being based upon the total weight of said first, second and third polymers; and wherein said film has a maximum ram puncture force of at least 70 Newtons, a ram puncture stress of at least 110 MPa, and a tear propagation strength "x" such that $10 \leq x \leq 40$ grams per mil in each of the machine and transverse directions or $x < 25$ grams per mil in at least one of the machine and transverse directions; and said core layer is disposed between said second and said fourth layers.

43. (Amended)   A biaxially stretched, heat shrinkable film comprising at least three layers, a first layer comprising a blend of at least three polymers comprising: a first polymer having a melting point of 80 to 98°C comprising a copolymer of ethylene and hexene-1; a second polymer having a melting point of 115 to 128°C comprising a copolymer of ethylene and at least one α-olefin; a third polymer having a melting point of 60 to 110°C comprising a copolymer ethylene and a vinyl ester or

have a combined weight percentage of at least 50 weight percent, said weight percent being based upon the total weight of said layer;

a third layer comprising at least 80% by weight, based on said third layer's weight, of at least one copolymer of vinylidene chloride with from 2 to 20 weight percent, based on said copolymer's weight, of vinyl chloride or methyl acrylate; and

a fourth polymeric layer comprising (a) from 10 to 85 wt. % of a first copolymer of ethylene and at least one C_3-C_8 α-olefin, said first copolymer having a melting point of 55 to 98°C; (b) from 5 to 60 wt. % a second copolymer of ethylene and at least one C_4-C_8 α-olefin, said second copolymer having a melting point of 115 °C to 128 °C, and (c) from 0 to 50 wt. % of a third copolymer having a melting point of 60 to 110 °C of ethylene with a vinyl ester or alkyl acrylate , wherein said first and second copolymers have a combined weight percentage of at least 50 weight percent, said weight percent being based upon the total weight of said layer; and

wherein said film has a shrinkage value at 90 °C of at least 40% in at least one of the machine and transverse directions, and said film has a tensile seal strength of at least 400 g/cm at 88 °C.

104. (Amended) A film, as defined in claim 87, wherein: (a) in at least one of said second and fourth polymeric layers said first copolymer comprises at least one copolymer having a melting point of 80 to 98°C of ethylene and hexene-1 and is present in an amount of from 20 to 85 weight percent, based upon the weight of the layer containing said first copolymer and wherein (b) said second copolymer has a melting point of 115 to 128°C and is present in an amount of 5 to 35 weight percent based upon the weight of the layer containing said second copolymer; and (c) said third polymer having a melting point of 60 to 110°C is present in an amount of 10 to 50 weight percent, based upon the weight of the layer containing said third polymer.

107. (Amended) A film, as defined in claim 104 or 105, wherein said copolymer of ethylene

and hexene-1 is present in an amount of 45 to 85 wt. %.

108. (Amended) A film, as defined in claim 104 or 105, wherein said copolymer of ethylene

and hexene-1 is present in an amount of 20 to 45 wt. %.